



## GRAVES' DISEASE

### Double vision is not related with overall inflammation in Graves' orbitopathy

#### BACKGROUND

Thyroid eye disease, also known as Graves' orbitopathy (GO), is one of the more disabling features of Graves' disease. Almost 1/3rd of patients newly diagnosed with Graves' disease have GO to some degree, with ~5-6% of patients having moderate-to-severe and active GO. In the consensus statement of the European Group on Graves' Orbitopathy (EUGOGO) on management of GO, moderate-to-severe GO has a sufficient impact on daily life to justify the risks of powerful immune-suppressing drugs (if active) or surgery (if inactive). Double vision is one of the features of moderate-to-severe GO and is the principal cause of an inability to work. In this study, the occurrence of double vision was examined in patients with moderate-to-severe GO and the results were correlated with the other symptoms of GO.

#### THE FULL ARTICLE TITLE

Laurberg P et al. Double vision is a major manifestation in moderate to severe Graves' orbitopathy, but it correlates negatively with inflammatory signs and proptosis. *J Clin Endocrinol Metab.* February 13, 2015 [Epub ahead of print].

#### SUMMARY OF THE STUDY

The study included 210 patients diagnosed with moderate-to-severe GO who were seen in the Thyroid–Eye Clinic of Aalborg University Hospital in Denmark from 1992 to 2013. The duration of GO was determined based on the interview. At diagnosis, characteristics of GO were recorded by the same investigators, using standardized procedures.

All patients had active GO at the time of referral. All patients had imaging of the orbit (CT or MRI).

Patients were stratified into four groups according to the degree of double vision: no double vision, 25%; double vision in up to 50% of the field, 22%; double vision in 55% to 80% of the field, 28% and double vision in ≥85% of the field, 25%. Double vision was associated with a decrease in eye motility. In contrast, double vision was not related to the degree of inflammation. There were no correlations between double vision and patient's age, smoking habit, sex, body weight, type and duration of thyroid dysfunction, duration of GO, vision or previous radioiodine therapy.

#### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

In this series of patients with moderate-to-severe GO, double vision was very common and was the main reason for classifying GO as moderate-to-severe. Double vision was not related to the activity score of the disease or with the degree of eye bulging but was associated with decreased movement of the eyes. The authors suggest that eye-muscle restriction and degree of double vision be separately recorded in patients with GO as well as in controlled clinical studies of the disease.

— Alan P. Farwell, MD, FACE

#### ATA THYROID BROCHURE LINKS

Graves' disease: <http://www.thyroid.org/what-is-graves-disease>

#### ABBREVIATIONS & DEFINITIONS

**Graves' disease:** the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

**Graves orbitopathy (GO):** also known as Thyroid eye disease. GO is most often seen in patients with

Graves' disease but also can be seen with Hashimoto's thyroiditis. GO includes inflammation of the eyes, eye muscles and the surrounding tissues. Symptoms include dry eyes, red eyes, bulging of the eyes and double vision.